

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Necdet Uzun and Mete Yilmaz  
Assignee: Cisco Technology, Inc.  
Title: Weighted Fairness Decisions In SRP Forwarding Block  
Serial No.: 09/854,416 Filing Date: May 11, 2001  
Examiner: Le Hien Luu Group Art Unit: 2141  
Docket No.: CIS0161US Client Ref. No.: 5118

Austin, Texas  
May 3, 2005

Mail Stop Petition  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PETITION TO WITHDRAW HOLDING OF ABANDONMENT**

Dear Sir:

The above-identified application is believed to be abandoned for failure to respond to the Non-Final Office Action of August 23, 2004, which had a shortened statutory period set to expire November 23, 2004, and a statutory period set to expire February 23, 2005. Pursuant to 37 C.F.R. § 1.181(a), the applicants respectfully petition the Commissioner to withdraw the holding of abandonment in the above-identified application, in light of the following points.

1. The undersigned attorney for the applicants received a facsimile of the Non-Final Office Action of August 23, 2004 from Examiner Luu on April 4, 2005 (see attached copy).
2. This facsimile was transmitted to the undersigned attorney for the applicants after the Examiner contacted the undersigned attorney for the applicants via telephone regarding the abandonment of the application.
3. According to the first page of the Non-Final Office Action of August 23, 2004 (see attached copy), the Office Action was mailed to applicants' previous counsel, Fish & Richardson.

4. The original Non-Final Office Action of August 23, 2004 was never received by the applicants' current representatives.
5. The applicants properly changed the address of correspondence from previous counsel to the firm of the undersigned attorney via customer number spreadsheet on or about July 3, 2002 (see attached copy) and again on or about September 10, 2002 (see attached copy).
6. The applicants believed the change of address of (5) was effective because: (a) a response to a Request for Status was received by the undersigned attorney at the correct address on December 11, 2003 (see attached copy); and (b) Examiner Luu contacted an attorney (Sam Campbell) with the undersigned attorney's firm regarding a restriction requirement on August 16, 2004 (see attached copy of p. 3 of Non-Final Office Action of August 23, 2004, no. 5).
7. The applicants believe that the Non-Final Office Action of August 23, 2004 was sent in error, and through no fault of their own, to previous counsel.
8. Per MPEP §711.03(c)(I)(A), the applicants respectfully submit that a Petition to Withdraw Holding of Abandonment is proper under these circumstances. Accordingly, the undersigned states for the record that the original Non-Final Office Action of August 23, 2004 was not received by counsel for the applicants, and attests to the fact that a search of the file jacket and docket records indicates that the original Non-Final Office Action of August 23, 2004 was not received. A copy of the docket record is attached.
9. Although, the applicants are unaware of any particular mailing date of a Notice of Abandonment, this petition is filed within two months of their becoming aware of the Non-Final Office Action of August 23, 2004. *See* 37 C.F.R. § 1.181(f). Because this petition is filed timely, no terminal disclaimer is required. *See* MPEP 711.03(c).
10. A Response to the Non-Final Office Action of August 23, 2004 accompanies this petition.
11. The applicants therefore respectfully request that the holding of abandonment be withdrawn.

In view of the remarks set forth herein, the applicants believe the holding of abandonment should be withdrawn and that no petition fee is required. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313-1450, on May 3, 2005.

  
\_\_\_\_\_  
Attorney for Applicant(s)

5/3/05  
\_\_\_\_\_  
Date of Signature

Respectfully submitted,



Marc R. Ascolese  
Attorney for Applicant(s)  
Reg. No. 42,268  
512-439-5085  
512-439-5099 (fax)



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

Number of pages including this page 10

REF (Application serial number) 09/854,416

DATE 4/4/05

TO

Mr. Marc R. Ascolese  
NAME

COMPANY

512-439-5099  
FAX NUMBER

FROM

LE HIEN LUU

(703) 305-9650

(703) 308-5359 (FAX)

IF AN INCOMPLETE OR ILLEGIBLE TRANSMISSION WAS RECEIVED, PLEASE CALL:  
THE PERSON WHO SENT THE FAX  
OR GROUP 2300 RECEPTIONIST, (703) 305-3800

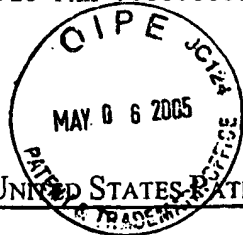
## CONFIDENTIALITY NOTICE

This facsimile message and accompanying documents are intended only for use of the addressee indicated above, and may contain information that is privileged or otherwise confidential under applicable laws. If this transmission has reached you in error, please immediately contact the sender by telephone or facsimile at the numbers listed above and return the original to us by mail. Any copying, distribution or other use or disclosure of this information by any one other than the above named recipient is strictly prohibited.

PATENT EXAMINING GROUP 2300  
COMPUTER SYSTEMS

COMPUTER APPLICATIONS

COPY



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,416	05/11/2001	Necdet Uzun	12801-007001	7677

7590 08/23/2004  
Fish & Richardson P.C.  
2200 Sand Hill Road  
Suite 100  
Menlo Park, CA 94025

EXAMINER

LUU, LE HIEN

ART UNIT

PAPER NUMBER

2141

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

COPY

**Office Action Summary**

Application No.

09/854,416

Applicant(s)

UZUN ET AL.

Examiner

Le H Luu

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/11/01 to 3/06/02.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.  
4a) Of the above claim(s) 22-28 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 2, 5-9, 13 and 17-21 is/are rejected.  
7) ☒ Claim(s) 3, 4, 10-12 and 14-16 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 7/30/01 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**COPY****Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

Application/Control Number: 09/854,416  
Art Unit: 2141

Page 2

1. Claims 1-28 are presented for examination.
2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-21, drawn to computer to computer data transfer regulating, classified in class 709, subclass 232.
  - II. Claims 22-28, drawn to input / output data buffer, classified in class 710, subclass 52.
3. The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group I has separate utility such as determine allowed usage for a node for servicing transmit and transit traffic, Group II has separate utility such as service transmit and transit buffers based on threshold values. See MPEP § 806.05(d).
4. The inventions are distinct, each from the other because of the following reasons:
  - a. These inventions have acquired a separate status in the art as shown by their different classification
  - b. The search required for one Group is not required for the other Groups

COPY

Application/Control Number: 09/854,416  
Art Unit: 2141

Page 3

For the reasons above restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Mr. Samuel Campbell on 08/16/2004 a provisional election was made without traverse to prosecute the invention of GROUP I, claims 1-21. Affirmation of this election must be made by applicant in responding to this Office action. Claims 22-28 are withdrawn from further consideration by the Examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention.

6. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

7. Applicant is requested to formally cancel the non-elected claims.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

COPY



Application/Control Number: 09/854,416  
Art Unit: 2141

Page 4

9. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

10. Claims 2 and 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 2 and 13, it is not clear which "the usage data" is being forward to an upstream node. For purpose of examination, Examiner assume that the usage data of the node is being forwarded to an upstream node.

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the

COPY

Application/Control Number: 09/854,416  
Art Unit: 2141

Page 5

international application designated the United States and was published under Article 21(2) of such treaty in the English language.

or

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

12. Claims 1-2, 5-9, 13, and 17-21 are rejected under 35 U.S.C. § 102(e) as being anticipated by Lothberg et al. (Lothberg) patent no. 6,775,295.

13. As to claim 1, Lothberg teaches the invention as claimed, including a method for servicing transit and transmit traffic in a node of a network, the network including a plurality of nodes connected by first and second rings formed by two or more transmission media, the method comprising:

receiving usage data from a downstream node (col. 6 lines 52-59);

COPY

Application/Control Number: 09/854,416  
Art Unit: 2141

Page 6

Identifying a first weighted value associated with a provisioning rate associated with the downstream node and a second weighted value associated with a provisioning rate of the node (col. 6 lines 52-59; col. 9 lines 36-52);

determining an allowed usage for the node using the usage data and the first and second weighted values (col. 7 line 34 - col. 9 line 52); and

servicing transmit and transit traffic received at the node including limiting the servicing of the transmit traffic in accordance with the determined allowed usage (col. 7 line 34- col. 9 line 52).

14. As to claim 2, Lothberg teaches determining usage data for the node based on the usage data received from the downstream node; and forwarding the usage data of the node to an upstream node (col. 7 lines 34-50).

15. As to claims 5-7, Lothberg teaches receiving the first weighted value with the usage data as a scalar from the downstream node; and retrieving the first and second weighted values from a table (col. 7 line 34 - col. 9 line 52).

16. Claims 8-9, 13, and 17-21 have similar limitations as claims 1-2 and 5-7; therefore, they are rejected under the same rationale.

COPY

Application/Control Number: 09/854,416  
Art Unit: 2141

Page 7

17. Claims 3-4, 10-12, 14, and 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Le H. Luu, whose telephone number is (703) 305-9650. The examiner can normally be reached Monday through Friday from 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached at (703) 305-4003. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7240.

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for formal communications; please mark  
"EXPEDITED PROCEDURE").

Or:

COPY

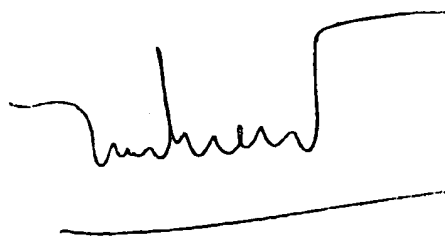
Application/Control Number: 09/854,416

Page 8

Art Unit: 2141

(703) 872-9306 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT").

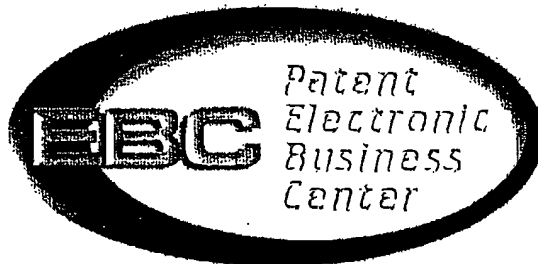
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal  
Drive, Arlington, VA., Sixth Floor (Receptionist).



LE HIEN LUU  
PRIMARY EXAMINER

August 17, 2004

COPY



RECEIVED

JUL 02 2002

Ras

FAX

FROM MARC ASCOLESE

To: Samuel G. Campbell, III

TO

From: Keith E. Peterson

703-308-2840

Fax: 512-439-5084

Date: July 2, 2002 JULY 3, 2002

Phone: 512-439-5084

Pages: 13 (Including Cover Sheet)

Re: CN Upload for CN 33031

CC:

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

We are in receipt of your spreadsheet to associate your applications/patents with your customer number. We have compared the correspondence addresses of the applications/patents numbers from the list with the existing correspondence addresses in the PALM database and have generated a list of mis-matched addresses (error report). Please see the attached spreadsheet.

Please review all applications and patents on the attached error report spreadsheet. Once you have verified whether or not you wish to associate all of these numbers with your customer number, please mark them as such on the attached spreadsheet (i.e., yes or no) and fax it back to me at (703) 308-2840. Please note that once the Patent Electronic Business Center processes the final corrected list, the correspondence and maintenance fee addresses for each application found on the corrected list will be associated with the correspondence address from your customer number. **Detailed review and verification of the application and patent numbers on the error report list is critical because any application or patent on the approved final corrected list that should not have been included will be disassociated from its proper correspondence address and assigned to you.**

Notice that if the correspondence address comparison performed by the PEBC turns up a large number of applications on the error report, you may be asked to provide a new spreadsheet more consistent with the results shown from the error report.

If there are NO changes to be made, you can just fax me back to let me know that it is ok to associate all files with your customer number.

If you have any questions, please feel free to contact me at 1-866-217-9197 (toll free) or 1-703-305-3028.

Sincerely,

Keith E. Peterson

Here are the correction!

Thanks

Man Ah

COPY

33031

REDACTED

09854416

9600 GREAT HILLS TRAIL, SUITE 300W, AUSTIN, TX 78759, US

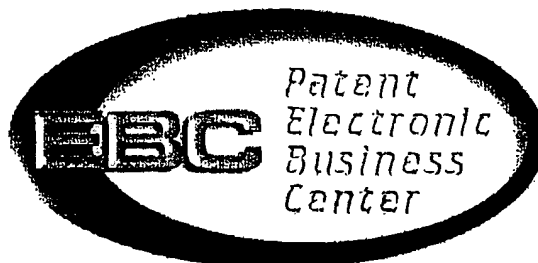
SAM CAMPBELL, ESQ, SKJERVEN, MORRILL, MACPHERSON LLP

REDACTED

YES

YES

COPY

**FAX****To:** Samuel G. Campbell, III**From:** Keith E. Peterson**Fax:** 512-439-5099**Date:** September 10, 2002**Phone:** 512-439-5084**Pages:** 12 (Including Cover Letter)**Re:** CN Upload for CN 33031**CC:**

We are in receipt of your spreadsheet to associate your applications/patents with your customer number. We have compared the correspondence addresses of the applications/patents numbers from the list with the existing correspondence addresses in the PALM database and have generated a list of mis-matched addresses (error report). Please see the attached spreadsheet.

Please review all applications and patents on the attached error report spreadsheet. Once you have verified whether or not you wish to associate all of these numbers with your customer number, please mark them as such on the attached spreadsheet (i.e., yes or no) and fax it back to me at (703) 308-2840. Please note that once the Patent Electronic Business Center processes the final corrected list, the correspondence and maintenance fee addresses for each application found on the corrected list will be associated with the correspondence address from your customer number. **Detailed review and verification of the application and patent numbers on the error report list is critical because any application or patent on the approved final corrected list that should not have been included will be disassociated from its proper correspondence address and assigned to you.**

Notice that if the correspondence address comparison performed by the PEBC turns up a large number of applications on the error report, you may be asked to provide a new spreadsheet more consistent with the results shown from the error report.

If there are NO changes to be made, you can just fax me back to let me know that it is ok to associate all files with your customer number.

If you have any questions, please feel free to contact me at 1-866-217-9197 (toll free) or 1-703-305-3028.

Sincerely,

Keith E. Peterson

308 6910?

**COPY**





REDACTED

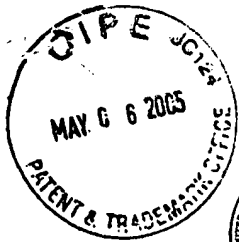
SAM CAMPBELL, ESQ, SKJERVEN, MORRILL, MACPHERSON LLP

9600 GREAT HILLS TRAIL, SUITE 300W, AUSTIN, TX 78759, US

09654418

REDACTED

COPY



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D. C. 20231  
[www.uspto.gov](http://www.uspto.gov)

Date: 12/8/03

CAMPBELL STEPHENSON ASCOLESE, LLP  
4807 SPICEWOOD SPRINGS RD.  
BLDG. 4, SUITE 201  
AUSTIN TX 78759

To: Applicant of Serial Number 09854416 (Art Unit 2143)

We currently project that it will be more than 15 months before this application will receive a first office action. This is because the application is classified in a technology that has experienced a large filing rate growth over the last few years. The Office is addressing the growth by adjusting examination resources accordingly. You may wish to consult the MPEP (708.02) to see if filing a petition to make special is appropriate.

Customer Service Office in Technology Center: 2100

Phone Number: 703-305-3900

FAX Number: 703-872-9306

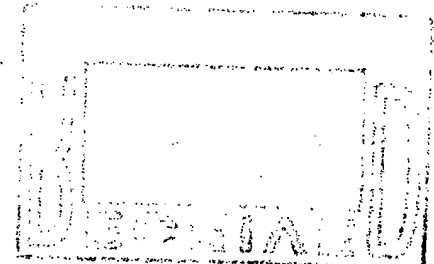
Applicant/Attorney Contact Information:

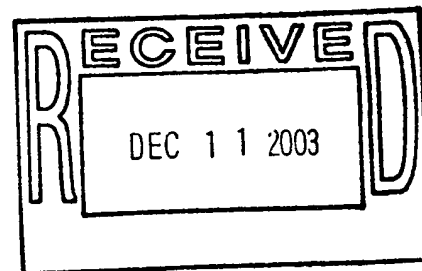
Telephone: (512)426-5787

Fax: (512)794-3601

ACQUIRED:  
DATE:  
COPIED BY:  
FILED:  
YELLOWIA

COPY





ATTORNEY: SGC IMPA  
MATTER: CISOLGUS  
DOCKETED BY: 20  
DATE: 12.11.05  
VERIFIED: \_\_\_\_\_  
\*remarks

COPY



# Country Application

Monday, May 02, 2005

Page: 1

Case Number: CIS0161

Country: US

SubCase:

Client: Cisco Systems, Inc.

United States of America

Case Type: PRI

Application Status: Pending

Applic. Title: Weighted Fairness Decisions In SRP Forwarding Block

Application Number: 09/854416

Filing Date: 11-May-2001

Publication Number:

Publication Date:

Patent Number:

Issue Date:

Parent/PCT Number:

Parent/PCT Date :

Parent Issue Number:

Parent Issue Date :

Agent:

Expiration Date:

PTA: 0

Agent Reference No.:

Tax Schedule: LE

Confirmation #:

Remarks: M-12275 US  
Seq No.: 5118

Rec'd Status Letter Reply dtd 12/8/03 ~ +15 months before first OA

Filed Power of Attorney by Assignee of Entire Interest on 1/25/05

Rec'd Notice of Acceptance of Power of Attorney dtd. 3/7/05.

Filed Change of Correspondence Address on 4/1/05

\*Expect Notice of Abandonment - an OA was mailed to wrong address..we never received it

COPY

## Country Application

Monday, May 02, 2005

Page: 2

### List Of Actions

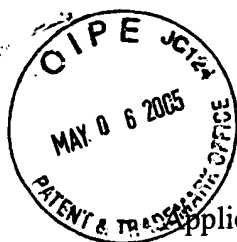
Action(s) Due	Due Date		Action Taken
Check Priority Claim	11-Aug-2001	Due Date	11-Aug-2001
Information Disclosure Stmt	11-Aug-2001	Due Date	11-May-2001
Check Filing Receipt	11-Sep-2001	Due Date	19-Sep-2001
Information Dis Follow Up Date	11-Nov-2001	Due Date	11-May-2001
Check Recorded Assignment	11-Dec-2001	Due Date	09-Oct-2001
Foreign Filing Reminder	11-Jan-2002	Reminder	23-Jan-2002
Foreign Filing Reminder	11-Mar-2002	Reminder	23-Jan-2002
Foreign Filing Due Soon	26-Apr-2002	Due Date	23-Jan-2002
Foreign Filing Due	11-May-2002	Final	23-Jan-2002
IDS from Search Report	26-Jul-2002	Due Date	23-Jan-2002
Application Status Check	11-Nov-2002	Due Date	27-May-2003
Application Sta Follow Up Date	27-Nov-2003	Due Date	12-Nov-2003

User ID: lclark

Date Created: 22-Aug-2002

Last Update: 01-Apr-2005

COPY

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Necdet Uzun and Mete Yilmaz  
Assignee: Cisco Technology, Inc.  
Title: Weighted Fairness Decisions In SRP Forwarding Block  
Serial No.: 09/854,416 Filing Date: May 11, 2001  
Examiner: Le Hien Luu Group Art Unit: 2141  
Docket No.: CIS0161US Client Ref. No.: 5118

Austin, Texas  
May 3, 2005

Mail Stop Petition  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE TO NON-FINAL OFFICE ACTION**

Dear Sir:

This paper is responsive to the non-final Office action dated August 23, 2004.  
Accompanying this response is a Petition to Withdraw Holding of Abandonment.  
Further examination and consideration are requested.

No Amendments to the Specification are presented in this paper.

Amendments to the Claims are reflected in the listing of claims which begins on  
page 2 of this paper.

Amendments to the Drawings begin on page 9 of this paper.

Remarks begin on page 10 of this paper.

An Appendix including amended drawing figures is attached following page 13 of  
this paper.

*Amendments to the Claims*

The listing of claims below will replace all prior versions and listings of claims in the present application.

*Claim Listing*

1           1. (Original) A method for servicing transit and transmit traffic in a node of a  
2 network, the network including a plurality of nodes connected by first and second rings  
3 formed by two or more transmission media, the method comprising:  
4           receiving usage data from a downstream node;  
5           identifying a first weighted value associated with a provisioning rate associated with  
6           the downstream node and a second weighted value associated with a  
7           provisioning rate of the node;  
8           determining an allowed usage for the node using the usage data and the first and  
9           second weighted values; and  
10          servicing transmit and transit traffic received at the node including limiting the  
11          servicing of the transmit traffic in accordance with the determined allowed  
12          usage.

1           2. (Currently Amended) The method of claim 1, further comprising  
2           determining usage data for the node based on the usage data received from the  
3           downstream node; and  
4           forwarding the usage data for the node to an upstream node.

1           3. (Currently Amended) The method of claim 2, wherein the step of determining  
2 usage data includes  
3           determining if the node is congested;  
4           ~~determine~~ determining if the usage data received indicates that a downstream node is  
5           congested;  
6           if both the node and the downstream node are congested, calculating the usage data to  
7           be the minimum of the prior actual usage data and the product of the ratio of

8 the maximum provisioned usage rate factors for the node and the downstream  
9 node and the usage data received;  
10 if the node is congested and the downstream node is not congested, maintaining the  
11 usage data for the node in an unchanged state; and  
12 if the node is not congested,  
13 determining if an actual weighted forward rate for the node is less than the received  
14 usage data,  
15 if the actual weighted forward rate is less than the received usage data, setting the  
16 usage data for the node to indicate to an upstream node that the node is not  
17 congested, and  
18 if the actual weighted forward rate is greater than or equal to the received usage data,  
19 setting the usage data for the node to be the received usage data.

1 4. (Original) The method of claim 1, wherein the step of determining the allowed  
2 usage for the node includes  
3 determining if the node is congested;  
4 determining if the usage data received indicates that a downstream node is congested;  
5 if both the node and the downstream node are congested, calculating the allowed  
6 usage to be the product of the ratio of the maximum provisioned usage rate  
7 factors for the node and the downstream node and the usage data received;  
8 if the node is congested and the downstream node is not congested, maintaining the  
9 allowed usage for the node in an unchanged state; and  
10 if the node is not congested, setting the allowed usage to be the usage value received  
11 from the downstream node.

1 5. (Original) The method of claim 1, further comprising receiving the first weighted  
2 value along with the usage data from the downstream node.

1 6. (Original) The method of claim 5, further comprising receiving the first weighted  
2 value and the usage data as a scalar that describes a ratio between the two.



1           7. (Original) The method of claim 1, wherein the step of identifying the first and  
2 second weighted values includes retrieving the first and second weighted values from a table  
3 accessible by the node.

1           8. (Original) A method for servicing transit and transmit traffic in a node of a  
2 network, the network including a plurality of nodes connected by first and second rings  
3 formed by two or more transmission media, the method comprising:  
4           receiving usage data and a desired forwarding rate from a downstream node;  
5           identifying a first weighted value associated with a provisioning rate associated with  
6           the downstream node and a second weighted value associated with a  
7           provisioning rate of the node;  
8           determining an allowed usage for the node using the usage data and the first and  
9           second weighted values;  
10          determining an allowed forwarding rate for the node defining a rate at which the  
11          transit and transmit traffic combined is forwarded onto a ring using the  
12          received desired forwarding rate;  
13          servicing transmit and transit traffic received at the node including limiting the  
14          servicing of the transmit traffic in accordance with the determined allowed  
15          usage and all traffic in accordance with the determined allowed forwarding  
16          rate.

1           9. (Original) The method of claim 8, further comprising  
2           determining a desired forward rate for an upstream node based on the congestion state  
3           of the node and the usage data received from the downstream node; and  
4           forwarding the desired forward rate to the upstream node.

1           10. (Original) The method of claim 9, wherein the step of determining the desired  
2 forward rate for a node includes  
3           determining if the node is congested;  
4           determining if the usage data received indicates that a downstream node is congested;

5 if both the node and the downstream node are congested, determining if a transmit  
 6 queue is empty;  
 7 if the transmit queue is not empty, determining if the allowed rate for the node is  
 8 greater than the actual usage plus a predetermined amount;  
 9 if the allowed rate is greater, calculating the desired forward rate to be a minimum of  
 10 a suggested rate term and the upstream line rate where the suggested rate term  
 11 is the sum of the desired forward rate received and a drop rate for the node  
 12 minus a usage term where the usage term is a predetermined value;  
 13 if the transmit queue is empty or if the allowed rate is less, calculating the desired  
 14 forward rate to be a minimum of two terms, where a first term is the sum of  
 15 the desired forward rate received and the drop rate for the node minus the  
 16 actual usage rate for the node and where the second term is the sum of the  
 17 minimum span line rate and the drop rate for the node minus the actual usage  
 18 rate for the node;  
 19 if the node is congested and the downstream node is not congested, calculating the  
 20 desired forward rate to be the sum of two terms, where the first term is the  
 21 difference of the downstream line rate and the actual usage and the second  
 22 term is the difference of the drop rate for the node and a predetermined  
 23 amount; and  
 24 if the node is not congested, setting the desired forward rate to be equal to the  
 25 upstream line rate.

1 11. (Original) The method of claim 10 where the predetermined value is a constant.

1 12. (Original) The method of claim 10 where the predetermined value is the  
 2 difference of the allowed usage and the actual usage rate divided by two.

1 13. (Currently Amended) The method of claim 8, further comprising  
 2 determining usage data for the node based on the usage data received from the  
 3 downstream node; and  
 4 forwarding the usage data for the node to an upstream node.

1           14. (Original) The method of claim 13, wherein the step of determining usage data  
2 includes determining if the node is congested;  
3           determine if the usage data received indicates that a downstream node is congested;  
4           if both the node and the downstream node are congested, calculating the usage data to  
5                 be the minimum of the prior actual usage data and the product of the ratio of  
6                 the maximum provisioned usage rate factors for the node and the downstream  
7                 node and the usage data received;  
8           if the node is congested and the downstream node is not congested, maintaining the  
9                 usage data for the node in an unchanged state; and  
10          if the node is not congested,  
11          determining if an actual weighted forward rate for the node is less than the received  
12                 usage data,  
13          if the actual weighted forward rate is less than the received usage data, setting the  
14                 usage data for the node to indicate to an upstream node that the node is not  
15                 congested, and  
16          if the actual weighted forward rate is greater than or equal to the received usage data,  
17                 setting the usage data for the node to be the received usage data.

1           15. (Original) The method of claim 8, wherein the step of determining the allowed  
2 forward rate for a node includes  
3           determining if the node is congested;  
4           determining if the usage data received indicates that a downstream node is congested;  
5           if both the node and the downstream node are congested, determining if a transmit  
6                 queue is empty;  
7           if the transmit queue is not empty, determining if the allowed rate for the node is  
8                 greater than the actual usage plus a predetermined amount;  
9           if the allowed rate is greater, setting the nodes allowed forward rate to be the  
10                 minimum of a suggested rate term and the downstream line rate where the  
11                 suggested rate term is the sum of the desired forward rate received and the  
12                 allowed usage minus the actual usage for the node;

13 if the transmit queue is empty or if the allowed rate is less, setting the allowed  
14 forward rate for the node to be the maximum of the desired forward rate  
15 received and the minimum span line rate;  
16 if the node is congested and the downstream node is not, configuring the node to send  
17 at the full downstream rate including setting the allowed forward rate to be  
18 equal to the downstream line rate; and  
19 if the node is not congested, setting the allowed line rate to the desired forward rate  
20 received.

1 16. (Original) The method of claim 8, wherein the step of determining the allowed  
2 usage for the node includes  
3 determining if the node is congested;  
4 determining if the usage data received indicates that a downstream node is congested;  
5 if both the node and the downstream node are congested, calculating the allowed  
6 usage to be the product of the ratio of the maximum provisioned usage rate  
7 factors for the node and the downstream node and the usage data received;  
8 if the node is congested and the downstream node is not congested, maintaining the  
9 allowed usage for the node in an unchanged state; and  
10 if the node is not congested, setting the allowed usage to be the usage value received  
11 from the downstream node.

1 17. (Original) The method of claim 8, further comprising receiving the first  
2 weighted value along with the usage data from the downstream node.

1 18. (Original) The method of claim 17, further comprising receiving the first  
2 weighted value and the usage data as a scalar that describes a ratio between the two.

1 19. (Original) The method of claim 8, wherein the step of identifying the first and  
2 second weighted values includes retrieving the first and second weighted values from a table  
3 accessible by the node.

1           20. (Original) A node in a network including a plurality of nodes connected by first  
2 and second rings formed by two or more transmission media, the node comprising:  
3           fairness logic configured to  
4           receive usage data from a downstream node;  
5           identify a first weighted value associated with a provisioning rate associated with the  
6           downstream node and a second weighted value associated with a provisioning  
7           rate of the node;  
8           determine an allowed usage for the node using the usage data and the first and second  
9           weighted values; and  
10          service transmit and transit traffic received at the node including limiting the  
11          servicing of the transmit traffic in accordance with the determined allowed  
12          usage.

1           21. (Original) A node in a network including a plurality of nodes connected by first  
2 and second rings formed by two or more transmission media, the node comprising:  
3           fairness logic configured to  
4           receive a desired forwarding rate from a downstream node;  
5           determine an allowed forwarding rate for the node defining a rate at which the transit  
6           and transmit traffic combined is forwarded onto a ring using the received  
7           desired forwarding rate; and  
8           service transmit and transit traffic received at the node including limiting all traffic in  
9           accordance with the determined allowed forwarding rate.

1           22-28. (Cancelled)

**Amendments to the Drawings**

The attached Replacement Sheets of drawings includes changes to **Figures 1 and 2**. **Figures 1 and 2** have been amended to include the designation "Prior Art." No new matter has been added.

**Remarks**

Claims 1-21 are pending. Claims 22-28 have been cancelled. Claims 2, 3, and 13 have been amended.

The Examiner has required restriction to one of the following inventions under 35 U.S.C. § 121:

Group I. Claims 1-21, drawn to computer to computer data transfer regulating, classified in class 709, subclass 232.

Group II. Claims 22-28, drawn to input/output data buffer, classified in class 710, subclass 52.

During a telephone conversation between the Examiner and Sam Campbell on August 16, 2004, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-21. Affirmation of this election is hereby given. Claims 22-28 are withdrawn from further consideration by the Examiner as being drawn to a non-elected invention. Additionally, claims 22-28 have been cancelled by the applicants.

Appreciation is expressed for the indication of allowability of claims 3, 4, 10-12, 14, and 15-16. However, at this time the applicants choose to defer amendment of these claims until they have had the opportunity to traverse the Examiner's rejections.

Claim 3 has been amended to correct a typographical error. The applicants respectfully submit that this amendment in no way changes the scope of coverage of claim 3.

**In the Drawings**

**Figures 1 and 2** are objected to for not including the designation "Prior Art." Accordingly, **Figures 1 and 2** have been amended to address the Examiner's objection.

**Rejection of Claims under 35 U.S.C. § 112**

Claims 2 and 13 are rejected under 35 U.S.C. § 112, second paragraph. Claims 2 and 13 have been amended to address the Examiner's rejections. The applicants respectfully submit that these amendments in no way change the scope of coverage of claims 2 and 13.

Rejection of Claims under 35 U.S.C. § 102

Claims 1, 2, 5-9, 13, and 17-21 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Lothberg et al., U.S. Patent No. 6,775,295 (Lothberg). The applicants respectfully traverse these rejections.

Lothberg neither teaches nor suggests a method including:

identifying a first weighted value associated with a provisioning rate associated with the downstream node and a second weighted value associated with a provisioning rate of the node;

determining an allowed usage for the node using the usage data and the first and second weighted values; and

servicing transmit and transit traffic received at the node including limiting the servicing of the transmit traffic in accordance with the determined allowed usage;

as required by independent claim 1 and generally required by independent claims 8 and 20.

Regarding the claimed “identifying a first weighted value . . . and a second weighted value . . .,” the Examiner refers to column 6, lines 52-59, and column 9, lines 36-52 of Lothberg which states:

Each node implements the spatial reuse protocol by determining a fair amount of allocated bandwidth based on the bandwidth available to downstream nodes. Also, each node determines when control information should be sent upstream indicating that the node or nodes downstream are not receiving enough bandwidth. This is done by keeping track of four quantities: local transmit usage, downstream usage, allocated usage, and forward rate.

. . .

A number of variations of the calculations described above are used in addition to or instead of the methods described for calculating the local transmit usage and forward rate. *For example, in certain embodiments, instead of sending local transmit usage calculated in the manner described above upstream, a time weighted average of the local transmit usage is used. In one embodiment, the time weighted average of the local transmit usage is calculated so that the time weighted average of the local transmit usage tends to decrease more slowly than it increases. Similarly, in certain embodiments, a time weighted average of the forward rate is used in some embodiments.* Also, when a quantity such as local transmit



usage is decayed exponentially by periodically subtracting a fraction of the quantity, then, in some embodiments, a minimum constant is actually subtracted when the fraction of the quantity decreases below the minimum constant. (Emphasis added)

Thus, while Lothberg discloses using a time weighted average of the local transmit usage or the forward rate instead of the original values themselves, Lothberg neither teaches nor suggests identifying a first weighted value *associated with a provisioning rate associated with the downstream node and a second weighted value associated with a provisioning rate of the node*. Moreover, Lothberg simply discloses adjusting the original values themselves (i.e., the local transmit usage or the forward rate) rather than using the claimed weighted values.

Regarding the claimed “determining an allowed usage for the node using the usage data and the first and second weighted values,” the applicants respectfully submit that the particular parts of the cited reference that the Examiner has relied upon have not been designated as nearly as practicable, and the pertinence of the reference has not been clearly explained, both as required by 37 C.F.R. § 1.104(c)(2). Nevertheless, the applicants have made every effort to respond to the rejections outlined by the Examiner. More specifically, the Examiner refers to column 7, line 34 through column 9, line 52. Thus it appears that the Examiner is equating Lothberg’s “allocated usage” with the claimed “allowed usage.” However, nothing in the cited portion of Lothberg teaches or suggests the use of Lothberg’s time weighted average of local transmit usage or time weighted average of the forward rate in the calculation of Lothberg’s allocated usage. Thus, that which the Examiner asserts as teaching the claimed “weighted values” is not used to determine that which the Examiner asserts as teaching the claimed “allowed usage.”

Regarding the claimed “servicing transmit and transit traffic received at the node . . . in accordance with the determined allowed usage,” the applicants again respectfully submit that the particular parts of the cited reference have not been designated as nearly as practicable. The Examiner again refers to column 7, line 34 through column 9, line 52, without any further specificity. As noted above, the Examiner is apparently equating Lothberg’s “allocated usage” with the claimed “allowed usage.” However, nothing in the

cited portion of Lothberg teaches or suggests servicing both transmit and transit traffic in accordance with Lothberg's "allocated usage". Thus, Lothberg does not teach the claim limitation.

Accordingly, the applicants respectfully submit that independent claims 1, 8, and 20 are allowable over Lothberg. Claims 2-7 depend from claim 1 and are allowable for at least this reason. Claims 9-19 depend from claim 8 and are allowable for at least this reason.

Regarding independent claim 21, the applicants respectfully submit that claim 21 is allowable over Lothberg for at least the reasons stated above regarding the claimed "servicing . . . " limitation.

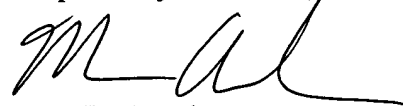
In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313-1450, on May 3, 2005.

  
Attorney for Applicant(s)

5/3/05  
Date of Signature

Respectfully submitted,



Marc R. Ascolese  
Attorney for Applicant(s)  
Reg. No. 42,268  
512-439-5085  
512-439-5099 (fax)